

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for manufacturing ceramic hollow fibers from nanoscale powders, ~~characterized in that~~ ~~the method comprising:~~

(a) ~~manufacturing~~ a ceramic mass ~~is manufactured,~~ ~~in which~~ ~~by transforming~~ a nanoscale metal oxide, carbide, nitride or sulfide powder ~~is transformed~~ with an oxycarboxylic acid, compounded to ~~a~~ ~~the~~ ceramic mass with at least one solvent and at least one polymeric binder //,//;

(b) ~~extruding~~ or ~~spinning~~ the ceramic mass ~~is extruded or spun~~ to hollow fiber blanks //,//; and

(c) ~~sintering~~ the blanks ~~are sintered according to conventional methods of sintering.~~

2. (Currently Amended) The method according to claim 1, ~~characterized in that~~ ~~wherein~~ the ceramic mass has a solids content of at least 20 vol%, ~~preferably > 25 vol%~~ and ~~especially > 30 vol%~~.

3. (Currently Amended) The method according to claim 1, ~~characterized in that~~ ~~wherein~~ the nanoscale powder is aluminum oxide, zirconium oxide, yttrium stabilized zirconium oxide, titanium oxide, silicon carbide, tungsten carbide and/or silicon nitride.

4. (Currently Amended) The method according to claim 1, ~~characterized in that~~ ~~wherein~~ the oxycarboxylic acid is preferably trioxadecanoic acid or dioctaheptanoic acid.

5. (Currently Amended) The method according to claim 1, ~~characterized in thatwherein~~ the solvent is water and/or ethyleneglycol, propyleneglycol, diethyleneglycolmonoethyl ether, diethyleneglycolmonobutyl ether, especially a mixture of ethyleneglycol and diethyleneglycolmonobutyl ether.

6. (Currently Amended) The method according to claim 1, ~~characterized in thatwherein~~ as polymer binder, a cellulose, methylcellulose, ethylcellulose, polyvinylalcohol, ambergum, a polyacrylate and/or polymethacrylate is utilized.

7. (Currently Amended) The method according to claim 1, ~~characterized in thatwherein~~ as polymeric binder a at least an acrylate and/or methacrylate is utilized, which is polymerized after the shaping by using a radical starter.

8. (Currently Amended) The method according to claim 1, ~~characterized in thatwherein the an~~ external diameter of the ceramic hollow fibers is < 500  $\mu\text{m}$ , ~~preferably < 200  $\mu\text{m}$  and especially < 100  $\mu\text{m}$ .~~

9. (Currently Amended) The method according to claim 1, ~~characterized in thatwherein the a~~ extrusion mass is placed in a special container or in a pressure vessel of a conventional spinning device and conveyed through the spinning device between room temperature and 300 °C.

10. (Currently Amended) The method according to claim 1, ~~characterized in thatwherein~~ the hollow fibers ~~can are~~

be sintered to densities of > 97 % of the theoretical density.

11. (Currently Amended) The method according to claim 1, ~~characterized in that~~ ~~wherein~~ porous hollow fibers are manufactured ~~whose~~ ~~having~~ a pore size, ~~in dependence~~ ~~dependent~~ on the sintering conditions (temperature, pressure, time, atmosphere) ~~is~~ ~~and~~ between 0.5 nm and 1000 nm, ~~preferably between~~ 0.5 nm and 200 nm ~~and especially between~~ 0.9 nm and 100 nm.

12. (Currently Amended) The method according to claim 11, ~~characterized in that~~ ~~to produce~~ ~~further comprising~~ adding porous hollow fibers active carbon ~~is added~~ to the ceramic mass, ~~preferably~~ in an amount from 5 to 20 wt% as a template.

13. (Currently Amended) Ceramic hollow fibers, ~~characterized by~~ ~~comprising~~ an external diameter of < 500  $\mu\text{m}$ , ~~preferably~~ < 200  $\mu\text{m}$ , ~~and especially~~ < 100  $\mu\text{m}$ , containing ~~the~~ ~~a~~ reaction product from a nanoscale metal oxide, carbide, nitride or sulfide powder, with an oxycarboxylic acid and at least one polymeric binder.

14. (Currently Amended) ~~The method according to claim 1 further comprising using~~ ~~Use of~~ the ceramic mass according to claim 1 for forming ceramic structures by means of ceramic silk screening and, if necessary in combination with a suitable masking technology, subsequent curing.

15. (Currently Amended) The method according to claim  
1 further comprising using Use-of-the ceramic hollow fibers  
according to claim 13 for the manufacture of a web that  
retains its shape when sintered.

16. (Currently Amended) The method according to claim  
1 further comprising using Use-of-the ceramic hollow fibers  
according to claim 13 for metal, polymer and ceramic matrix  
reinforcements, for artificial organs, for components in  
microsystems for optical waveguides, for ceramic membranes,  
for the solid electrolyte in fuel cells (SOFC), for tissue  
engineering and for the manufacture of extremely light  
weight ceramic parts for temperature stressed components  
like heat shields and brake systems.

17. (Currently Amended) The method according to claim  
1 further comprising using Use-of-the ceramic hollow fibers  
according to claim 13 for the manufacture of solid  
electrolytes in the high temperature fuel cell (SOFC).

18. (Currently Amended) The method according to claim  
14 further comprising using Use-of-the structures formed by  
means-of-ceramic silk screening according to claim 14 for  
insulation coatings, functional coatings, protective  
coatings for sensors, actuators and displays.